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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,666	02/20/2004	Youhei Toyoshima	44471/297709	7282

23370 7590 12/26/2006
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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT	PAPER NUMBER
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2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/26/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/783,666	TOYOSHIMA, YOUHEI	
	Examiner	Art Unit	
	Jeremy Luks	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson (2001/0045322) in view of Inaba (JP 60-120214).

With respect to Claims 1-4 and 8-17 Nilsson teaches a muffler body (Figure 1, #1); an upstream pipe (2), an end portion thereof is opened in the muffler body (1); a downstream pipe (6), an end portion (5) thereof is opened in the muffler body (1); and an opening formed in a side face of the downstream pipe (6) in the muffler body (10), the opening formed in a belt-like elongated area (6a) extending substantially along a main axis of the downstream pipe (6) and comprising a plurality of small holes (9) substantially arranged at regular intervals in said main axis, wherein the elongated area (6a) is directionally stretched in a circumferential direction of the downstream pipe (6) and is evenly distributed in a substantial main axis direction of the downstream pipe (6) (Page 3, [0032]); and wherein the end portion (end near chamber #3) of the upstream pipe (2) and the end portion (end near #7) of the downstream pipe (6) are opened towards the same direction. Nilsson fails to teach wherein the opening in the downstream pipe is positioned in an axial direction between the end portion of the upstream, pipe and the end portion of the downstream pipe; and wherein an expansion

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room of the muffler body is partitioned into a first expansion chamber, a second expansion chamber and a third expansion chamber by a first baffle plate and a second baffle plate. Inaba teaches wherein an opening (Figure 2, #33) in a downstream pipe (32) is positioned in an axial direction between the end portion of an upstream pipe (29) and the end portion of the downstream pipe (32); and wherein an expansion room of the muffler body is partitioned into a first expansion chamber (26), a second expansion chamber (27) and a third expansion chamber (28) by a first baffle plate (24) and a second baffle plate (25). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Nilsson, with the apparatus of Inaba to lower backpressure within the muffler and further tune the apparatus.

With respect to Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson (2001/0045322). Nilsson is relied upon for the reasons and disclosures set forth above, and further teaches the opening has an opening ratio in a range from 10% to 20%. Nilsson fails to teach the opening has an opening ratio in a range from 20% to 40%. However, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have an opening ratio in a range from 20% to 40%, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson (2001/0045322) in view of Inaba (JP 60-120214) as applied to Claim 1 above, and further in view of Miles (2,095,999). Nilsson is relied upon for the reasons and

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disclosures set forth above. Nilsson fails to teach wherein the opening comprises a slit formed in the elongated area. Miles teaches a slit (Figure 1, #24) formed in an elongated area (Col. 2, Lines 15-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Nilsson, with the apparatus of Miles to change the acoustic boundary conditions.

Response to Arguments

4. Applicant's arguments with respect to claims 1-4 and 7-17 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the obvious combination of Nilsson, Inaba and Miles to teach all of the limitations as claimed by Applicant.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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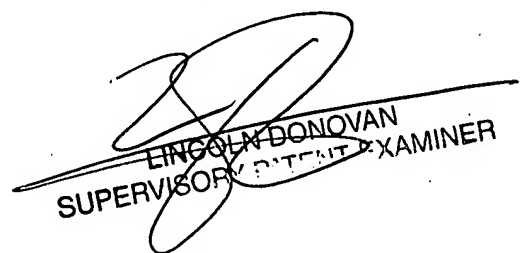
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
Art Unit 2837
Class 181



LINCOLN DONOVAN
SUPERVISOR, PATENT EXAMINER